FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-7398
US NAVAL AIR STATION, WHIDBEY ISLAND

GENERAL INFORMATION	
Applicant	Naval Air Station (NAS) Whidbey Island
Facility Name and Address	1155 West Lexington Street, Bldg. 113 Oak Harbor, WA 98278-3800
Type of Facility	Boat Building and Repairing and Other Industrial Related Activities
Facility Discharge Location	Latitude: 47° 17' 00" N Longitude: 122° 37' 00" W
Treatment Plant Receiving Discharge	City of Oak Harbor POTW
Contact at Facility	K. A. Souders Telephone #: (360) 257-1009
Responsible Official	Stephen P. Black Captain, U.S. Navy Commanding Officer Naval Air Station, Whidbey Island

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-7398. The Department of Ecology (the Department) proposes to issue this permit, which will authorize discharge of pretreated wastewater to the City of Oak Harbor's POTW. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities, which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information. Process Flow Diagrams are enclosed in Appendix B.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. Changes to the permit will be addressed in Appendix C—Response to Comments.

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

The Naval Air Station, Whidbey Island, is located in the northern part of Whidbey Island. It operates Seaplane Base located four miles southeast of Ault Field, east of the city of Oak Harbor, and surrounding Crescent Harbor. The five facilities covered under this permit are located at Seaplane Base. The discharges authorized in this permit include discharge from the footing drains for underground tanks in Fuel Farms 1 and 2, pressure wash water and stormwater from boat building and repair activity for the Morale Welfare/Recreation, Explosive Ordnance Detachment, and the Citgo Gas Station. The primary activities at the Seaplane Base include housing, recreation, shopping, commercial, and support.

FUEL FARMS 1 AND 2

Infiltrated rain water collected from underground tank footing drainage systems around four underground tanks in the Fuel Farm 1, and around seven underground tanks in the Fuel Farm 2 is routed to oil water separators for treatment in structures number 2671 and 2672, respectively. The separators were installed as a spill containment measure for use in the event of a spill or

leakage. Effluent from the separators discharges into the sanitary sewer. Past spills and leaks resulted in discharge into the groundwater. The Fuel Farm tanks footing drainage systems were installed during construction of the tanks in the 1940s. Their purpose is to maintain the structural integrity of the tanks by lowering the groundwater table, therefore reducing hydrostatic pressure, adjacent to the tank walls. In the mid-1980s, the oil water separators were installed as a pollution control measure. The Navy has an ongoing long-term monitoring and cleanup program in place under the Department of Ecology's Model Toxic Control Act (MTCA) in the areas around both fuel farms.

VESSEL WASH PADS IN THE EXPLOSIVE ORDNANCE DETACHMENT (EOD) AND MORALE WELFARE AND RECREATION (MWR)

The covered wash pad in the EOD is located adjacent to building 2795. Wastewater generated during the washing is directed to an oil water separator prior to discharge into the sanitary sewer. The vessels that are washed range in size from 22 to 27 feet. Additionally, inflatable Zodiac type boats and vessel tow vehicles are washed. Approximately three vessels are washed per day in the EOD. According to the Navy, the EOD vessels have no anti-fouling paint on the underwater body.

The wash pad in the MWR is located between buildings 81 and 2671. Small, mostly rental boats (including sailboats) are pressure washed here. Wastewater generated during the washing will be directed to a settling basin (with integral oil water separator) prior to discharge into the sanitary sewer. Approximately 100 boats per year will be washed. According to the Navy, no boat will be washed here if it has ablative anti-fouling paint.

The purpose of the washing is to remove salt water, sea growth, slime, dirt, and stains. Outboard motors are flushed with potable water over the wash pad. Each of the larger vessels has two outboard motors. The flushing may result in small amounts of oil becoming entrained in the flush water. Potable water at system pressure and rags are used to wash vessels and tow vehicles. A dilute detergent solution such as Simple Green will be used to help remove stubborn stains on a needed basis.

CITGO GAS STATION

This gas station includes a convenience store and a car wash. The car wash is a closed-loop system equipped with an integral sand interceptor, oil water separator, and reclamation tank. Very little overflow of wash water is being discharged from the closed-loop system into the sanitary sewer. The gas station contains six fuel dispensers. Within the dispenser area, vehicle fueling spillage, water dripping from cars, fresh water area wash down, and clean-up occur daily. The dispenser area is provided with a full-size overhead canopy cover, spill containment slab, a trench drain, and catch basin to contain and direct the wastewater generated in the area to an oil water separator prior to discharge to the sanitary sewer.

PERMIT STATUS

The previous permit was issued to the Navy on October 30, 2000, with an expiration date of May 30, 2004, for the discharge of treated wastewater from Fuel Farms 1 and 2 (Outfalls 001 and 002), the wash water from boat building and repair activity (Outfalls 003 and 004), and waste water from the Citgo Gas Station (Outfall 005). The facility filed an appeal of the permit on November 29, 2000. The appeal was settled based on the conditions set forth in the Stipulation and Agreed Order of Dismissal (PCHB No. 00-177) on June 18, 2001. Subsequently, the permit was modified on December 22, 2003, to reflect the changes in the above referenced Order of Dismissal. The application for permit renewal was submitted to the Department on November 26, 2003, and accepted by the Department on February 17, 2004.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on September 27, 2000. During the history of the previous permit, the Permittee has had the following violations:

DATES OF VIOLATIONS

Parameter	Outfall 001	Outfall 002	Outfall 005
BTEX	11/00, 5/01	11/00, 05/01	11/00, 04/01
Benzene	11/00, 5/01	11/00, 05/01	11/00, 04/01
pH	10/00, 05/01, 09/01	05/01, 09/01	04/01
TPH-D	05/01, 09/01	05/01, 09/01	
TPH-G			01/01, 04/01
Flow	05/01, 09/01	05/01, 09/01	04/01, 07/01

WASTEWATER CHARACTERIZATION

The proposed wastewater discharge is characterized for the following regulated parameters based on the monitoring data submitted between November 2000 and December 2003:

Outfall 001

Parameter	Range of Effluent Concentration
Flow	0.3 to 304 gpd
BTEX	0.4 to 2.8 ppb
Benzene	0.1 to 0.5 ppb
TPH-D	0.3 to 3.46 ppb
pH	7.49 to 8.32 standard units

Outfall 002

Parameter	Range of Effluent Concentration
Flow	1.9 to 354 gpd
BTEX	3.2 to 9100 ppb
Benzene	0.16 to 700 ppb
TPH-D	0.28 to 2.46 ppb
pH	7.13 to 8.04 standard units

Outfall 003

Parameter	Range of Effluent Concentration
Copper	0.05 to 0.23 mg/L
Lead	0.01 to 0.04 mg/L
Zinc	0.05 to 1.7 mg/L

Outfall 004

Parameter	Range of Effluent Concentration
Copper	0.03 to 0.06 mg/L
Lead	0.0 to 0.01 mg/L
Zinc	0.01 to 0.57 mg/L

Outfall 005

Parameter	Range of Effluent Concentration
Flow	0.06 to 350 gpd
BTEX	0.4 to 40 ppb
Benzene	1.10 ppb
TPH-G	0.17 to 1.21 ppb
pH	6.9 to 7.92 standard units

POTW's RECEIVING WATER

The pretreated contaminated groundwater and domestic wastewater from NASWI will be ultimately discharged to Crescent Harbor after receiving tertiary treatment from the City of Oak Harbor's Sewage Treatment Plant. The City's effluent is regulated by NPDES Permit No. WA-002056-7 for operating two wastewater treatment plants which are hydraulically interconnected by a diversion pump station. The Rotating Biological Contactor plant located adjacent to Oak Harbor Beach Park is operated at a constant flow of 0.7 MGD. Flows in excess of 0.7 MGD are diverted to the Seaplane Lagoon located on U.S. Navy Property. This facility operates three aerated lagoons in series including a physical-chemical treatment system, which is capable of feeding both ferric sulfate and polymer. The tertiary plant is capable of handling 0.885 MGD average flow. The effluent is discharged to Crescent Harbor via a 3,100-foot outfall with a diffuser which terminates at 42 feet below mean lower low water.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known available and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The minimum requirements to demonstrate compliance with the AKART standard and specific design criteria for this facility were determined in the submitted permit application package on November 7, 1997.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). The Department has determined that the wastewater from Fuel Farms 1 and 2 and the Citgo Gas Station is similar in character to the waste water from leaking underground storage tank (LUST) cleanup sites. The technology-based standards for LUST Cleanup sites (benzene 5 µg/L, BTEX 100 µg/L, TPH-G 1 mg/L, TPH-D 5 mg/L) were conditions in the previous permit on November 30, 2000, until the permit was modified on November 26, 2003. The limitations for BTEX, benzene, and TPH-G were removed for Outfalls 001, 002, and 005, and the limit for TPH-D was changed from 5 to 100 mg/L for Outfalls 001 and 002 based on the agreement as stipulated in the Stipulation and Agreed Order of Dismissal (PCHB No. 00-177). The main reason that the Department agreed to those conditions was to provide the Navy an opportunity to evaluate and upgrade their existing oil/water separators to ensure that the effluent can be in compliance with the previously proposed effluent limitations. The evaluation and upgrade were completed by 2003.

The facility has recently requested that these limits and their monitoring requirements not be included in the next permit. Based on the monitoring data submitted between June 2001 and December 2003, the facility has demonstrated the discharge to be generally in compliance with the previously proposed technology-based limits except for a couple of occasions for Outfall 002. The reported benzene levels for the months of March (13.2 ppb), and July 2002 (700 ppb), and BTEX for the month of July 2002 (1900 ppb) were unusually high. These exceedances may have resulted from analytical errors, or from spills or poor housekeeping/management practices. Given this information, and the fact that petroleum products are being handled at Fuel Farms 1 and 2 (Outfalls 001 and 002, respectively), the Department has determined to continue to impose an effluent limit and monitoring requirement for TPH-D at these locations. The Department is willing to remove the BTEX limit with the condition that the effluent limit for TPH-D be reduced from 100 mg/L to 50 mg/L. For the Citgo gas station (Outfall 005), the Department has determined not to impose effluent limits for this discharge but to continue to require monitoring of TPH-G at this location. If the monitoring data indicates values greater than 1 mg/L for TPH-

G at this location. If the monitoring data indicates values greater than 1 mg/L for TPH-G, the Department will consider setting a limit for Outfall 005 in the future. In addition, the Permittee may consider installing an automatic shutoff valve which is activated when LEL (lower explosive meter) values exceed 10%. Therefore, technology-based limits for these parameters are proposed in this permit as follows. Since benzene is included in the BTEX requirement, the Department proposes not to include a separate limit for benzene.

Outfalls 001 and 002

TPH-D 50 mg/L

Outfall 005

TPH-G monitor-only

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

The following effluent limitations are necessary to satisfy the requirement for AKART for the proposed pressure wash wastewater to be discharged to the City of Oak Harbor POTW. These limits are based on limits developed by the Department under the General Boatyard Permit. These local limits are necessary in order to protect the POTW from pass-through, interference, concentrations, of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels. The Permittee is required to develop and implement the treatment system and best management practices as soon as they become operational in order to comply with these limits prior to discharge to the sanitary sewer system.

Total Copper	2.4 mg/L
Total Zinc	3.3 mg/L
Total Lead	1.2 mg/L
pH	between 6 and 10 standard units

Pollutant concentrations in the proposed discharge with technology-based controls in place will not cause problems at the receiving POTW, such as interference, pass-through, or hazardous exposure to POTW workers nor will it result in unacceptable pollutant levels in the POTW's sludge.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies takes into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges [WAC 273-216-110 and 40 CFR 403.12 (e),(g), and (h)].

OPERATIONS AND MAINTENANCE

The proposed permit contains Condition S4 as authorized under RCW 90.48.110, WAC 173-220-150, Chapter 173-230 WAC, and WAC 173-240-080. It is included to ensure proper operation and regular maintenance of equipment and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC), and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SPILL PLAN

The Permittee may be storing a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The proposed permit requires the Permittee to develop and implement a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

BEST MANAGEMENT PRACTICES

Best management practices listed in the permit require proper management practices to prevent accidental or unpermitted releases to the waters of the state.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending, or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes, or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with pretreatment standards or requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control pollutants. To be consistent with statewide planning efforts for the Island/Snohomish Water Quality Management Area, the Department proposes that the permit be issued for a period of approximately four (4) years. Therefore, this permit will be issued with an expiration date of May 30, 2009.

REFERENCES FOR TEXT AND APPENDICES

1. EPA Report, EPA/600/2-88/014. A selective guide for volatization technologies for water treatment.

2. State Waste Discharge Permit Application submitted by NAS Whidbey Island on November 26, 2003.

3. State Waste Discharge Permit Program, Chapter 173-216, May 1988.

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to issue a new permit to the applicant listed on page one of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

The Department published a Public Notice of Draft (PNOD) on June 16, 2004, in *The Whidbey News Times* to inform the public that a draft permit and fact sheet were available for review. Interested persons were invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents were available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments were mailed to:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 - 160th Avenue SE
Bellevue, WA 98008-5452

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30)-day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 425-649-7201, or by writing to the address listed above.

This permit and fact sheet were written by Jeanne Tran, P. E.

APPENDIX B—SITE MAPS

Facility Site Map

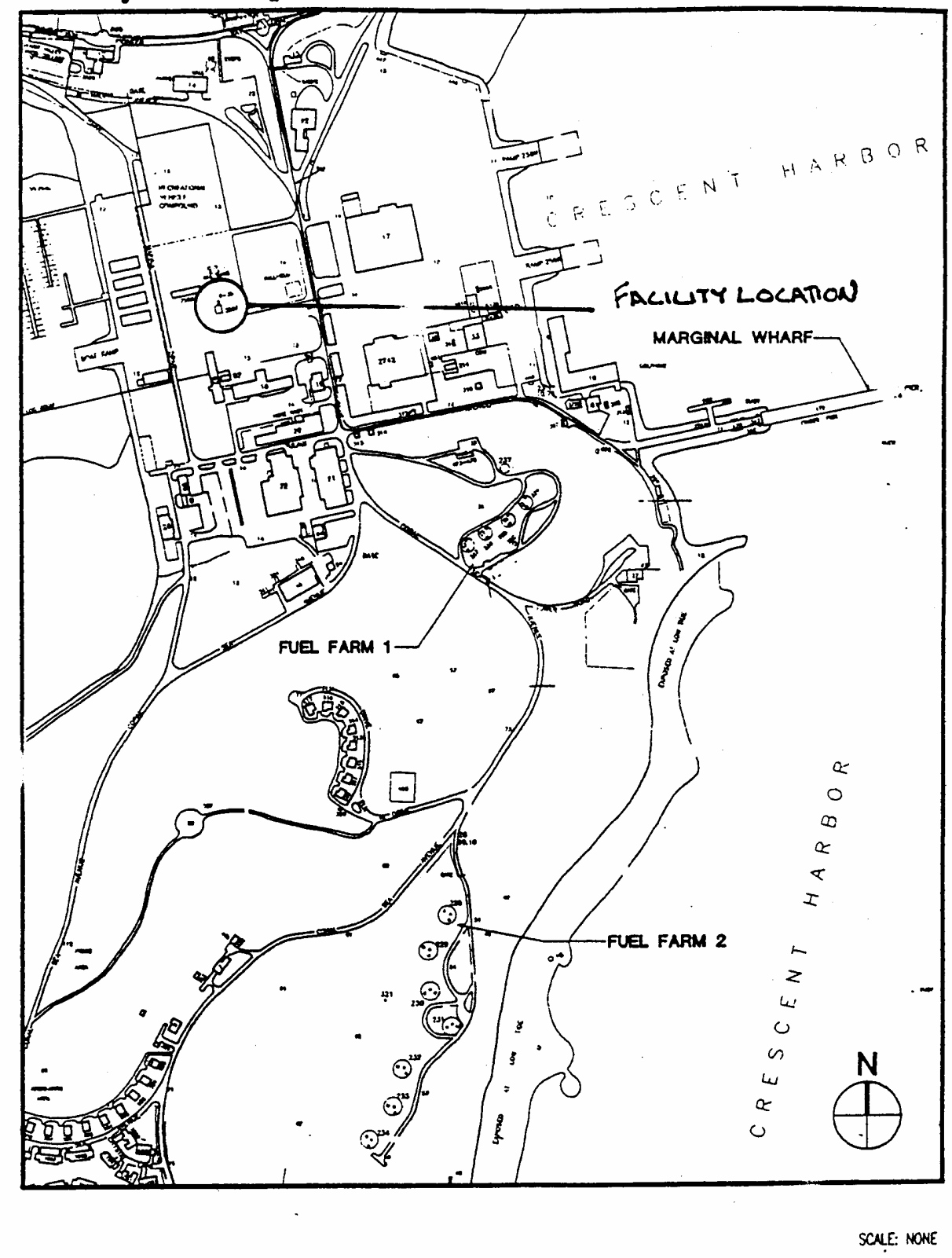

Figure 1.

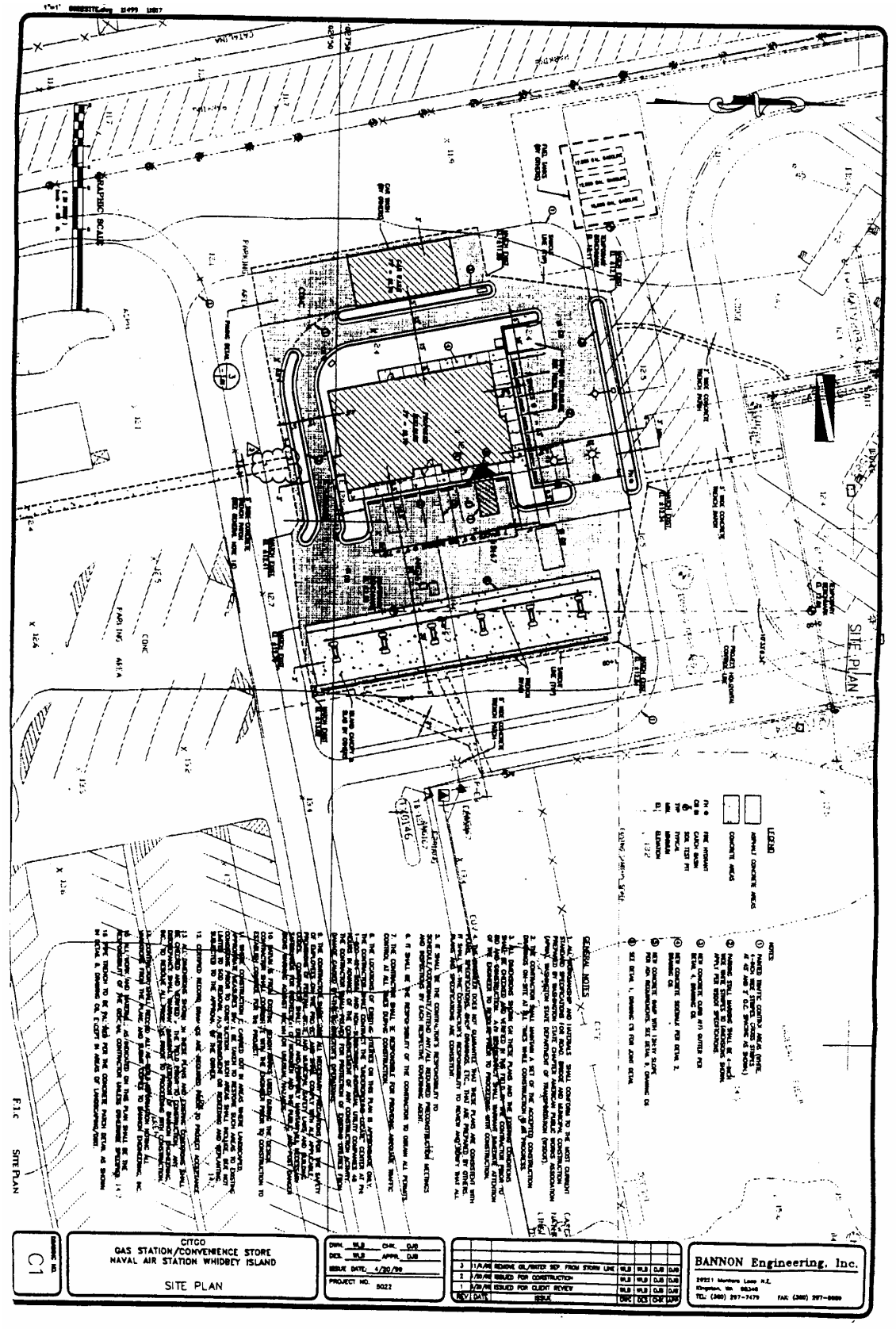
SITE PLAN
CITGO
GAS STATION/CONVENIENCE STORE
NAVAL AIR STATION WHIDBEY ISLAND
SITE PLAN
BANNON Engineering, Inc.

Figure 2.

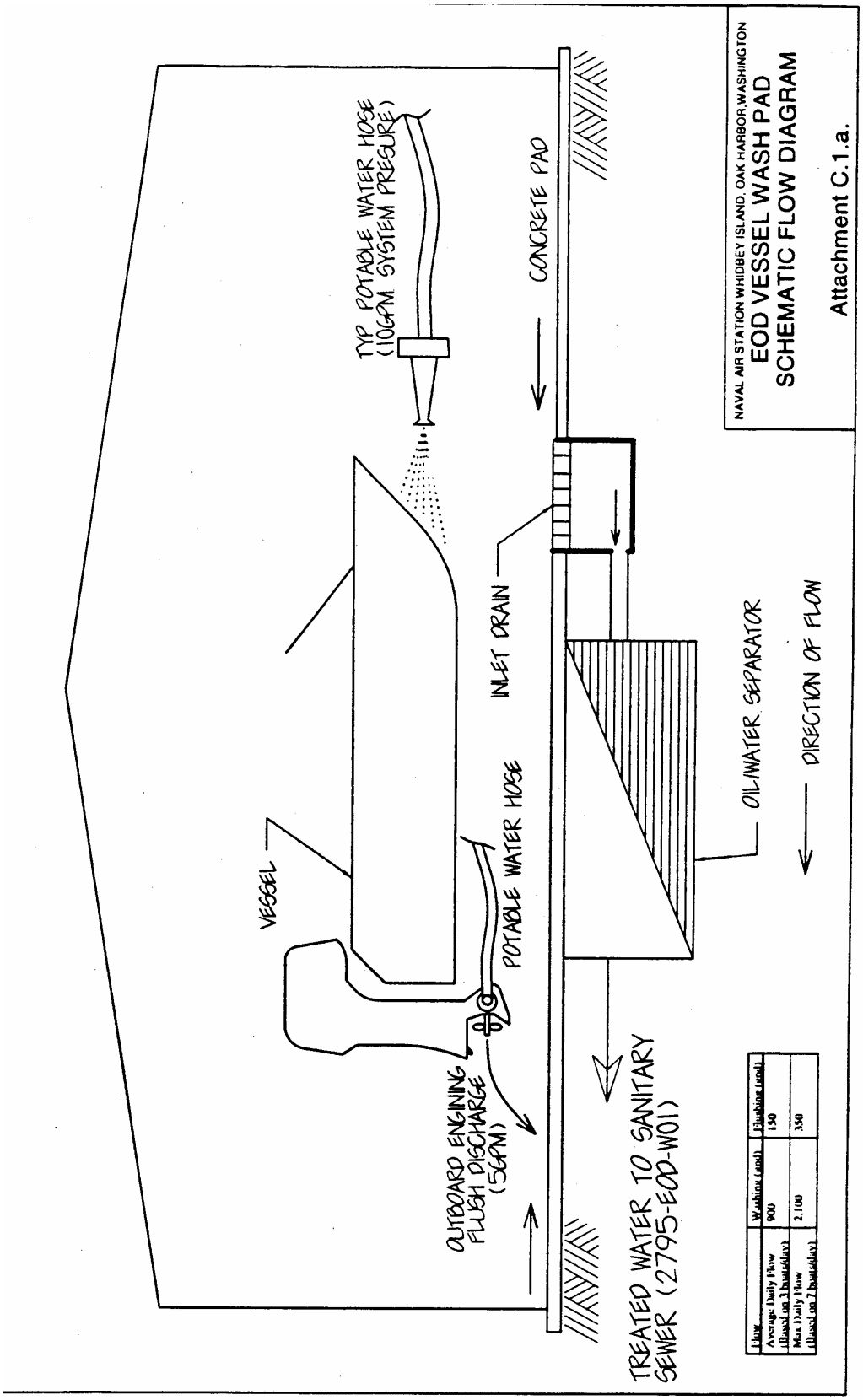
NAVAL AIR STATION WHIDBEY ISLAND, OAK HARBOR, WASHINGTON
EOD VESSEL WASH PAD
SCHEMATIC FLOW DIAGRAM
Attachment C.1.a.
TYP POTABLE WATER HOSE (10GPM SYSTEM PRESSURE)
CONCRETE PAD
INLET DRAIN
OIL/WATER SEPARATOR
DIRECTION OF FLOW
VESSEL
POTABLE WATER HOSE
OUTBOARD ENGINING FLUSH DISCHARGE (5GPM)
TREATED WATER TO SANITARY SEWER (2795-EOD-W01)
Flow
Washing (gpd)
Washing (gpd)
Average Daily Flow (Based on 3 Events/day)
900
150
Max Daily Flow (Based on 7 Events/day)
2,100
350

Figure 3.

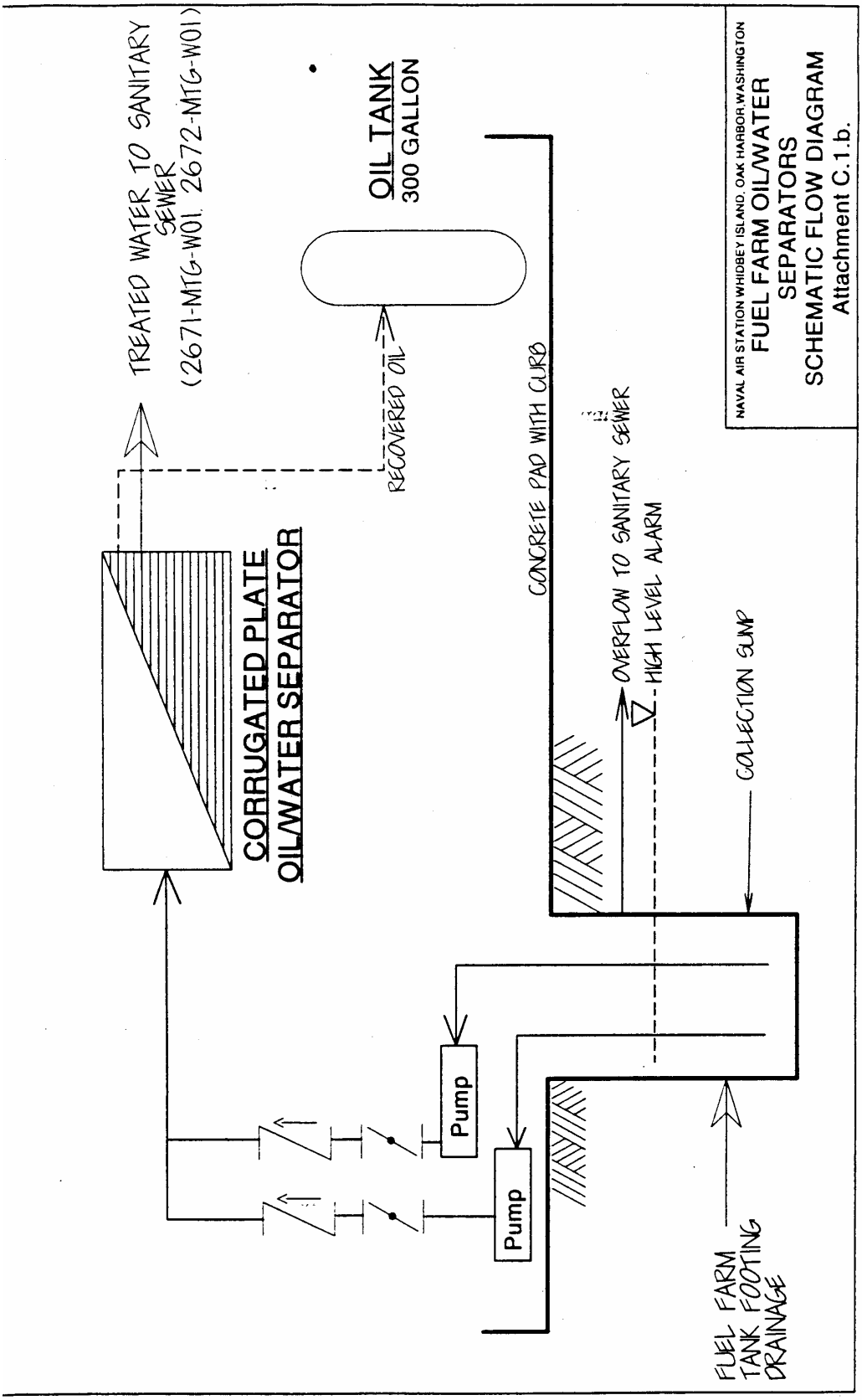
TREATED WATER TO SANITARY SEWER
(2671-MTG-W01, 2672-MTG-W01)
OIL TANK
300 GALLON
RECOVERED OIL
CONCRETE PAD WITH CURB
OVERFLOW TO SANITARY SEWER
HIGH LEVEL ALARM
COLLECTION SUMP
CORRUGATED PLATE
OIL/WATER SEPARATOR
Pump
Pump
FUEL FARM
TANK FOOTING
DRAINAGE
NAVAL AIR STATION WHIDBEY ISLAND, OAK HARBOR WASHINGTON
FUEL FARM OIL/WATER
SEPARATORS
SCHEMATIC FLOW DIAGRAM
Attachment C.1.b.

Figure 4.

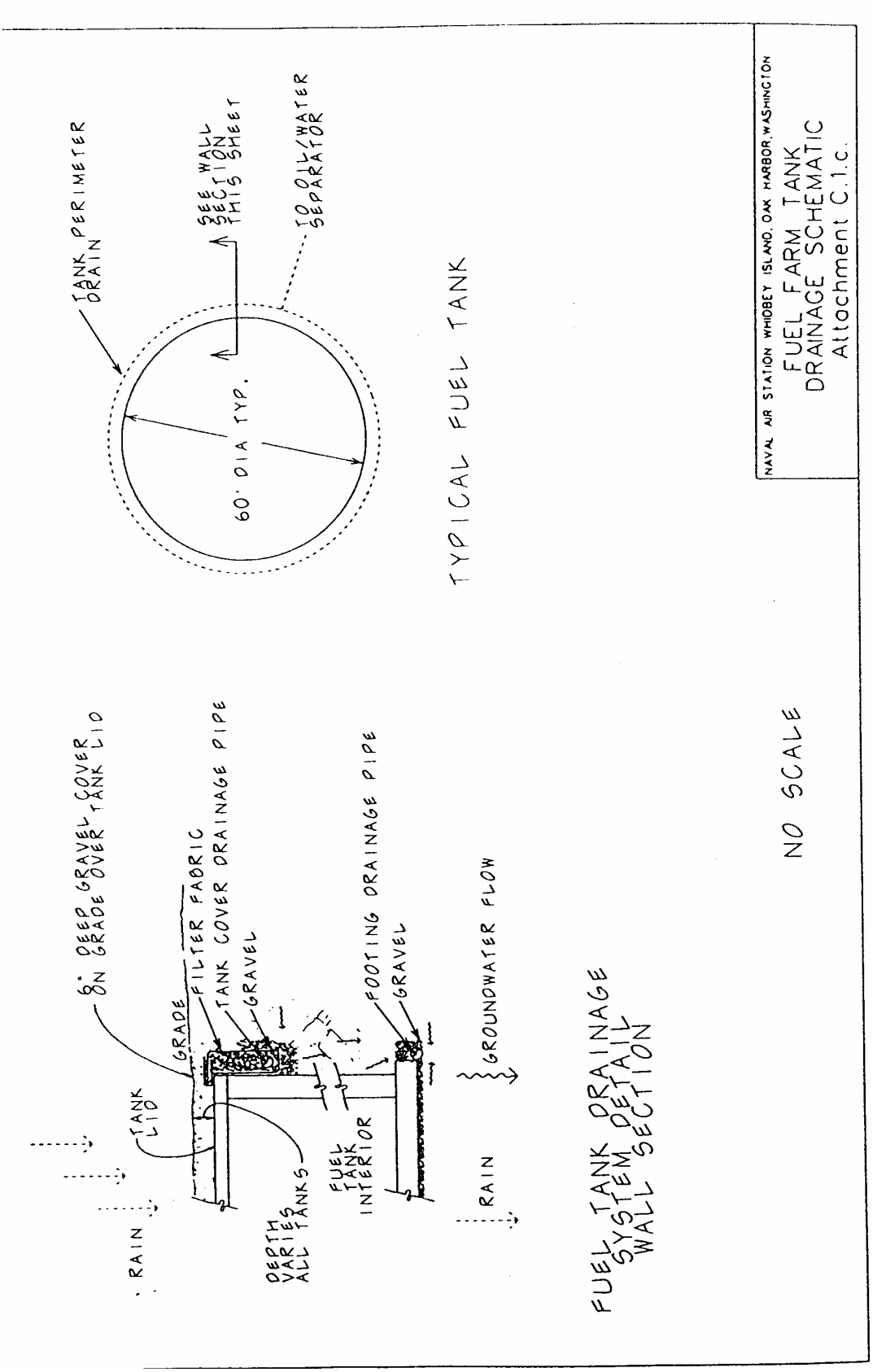
NAVAL AIR STATION WHIDBEY ISLAND, OAK HARBOR, WASHINGTON
FUEL FARM TANK
DRAINAGE SCHEMATIC
Attachment C.1.c.
TYPICAL FUEL TANK
TANK PERIMETER DRAIN
SEE WALL SECTION THIS SHEET
TO OIL/WATER SEPARATOR
60' DIA TYP.
NO SCALE
FUEL TANK DRAINAGE SYSTEM DETAIL WALL SECTION
6" DEEP GRAVEL COVER ON GRADE OVER TANK LID
GRADE
FILTER FABRIC
TANK COVER DRAINAGE PIPE
GRAVEL
FOOTING DRAINAGE PIPE
GRAVEL
GROUNDWATER FLOW
TANK LID
FUEL TANK INTERIOR
DEPTH VARIES ALL TANKS
RAIN
RAIN

Figure 5.

APPENDIX C—RESPONSE TO COMMENTS